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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,699	12/10/2001	Di-An Hong	CM012691(72468)	4412

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CHICAGO, IL 60603-3406

EXAMINER

FOULADI SEMNANI, FARANAK

ART UNIT	PAPER NUMBER
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2672

DATE MAILED: 07/17/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

pet / us02 / 37569

**Office Action Summary**

Application No.

10/016,699

Applicant(s)

HONG ET AL.

Examiner

Faranak Fouladi

Art Unit

2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 December 2001.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 and 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This action is responsive to communications: application, filed on 12/10/01; IDS, filed on 04/26/02; IDS, filed on 04/01/03.
2. Claims 1-22 are pending in the case, with claims 1, 14, 18 and 21 being independent.
3. The present title of the application is "Method and apparatus for biometric control of display indicator" (as originally filed).

### ***Drawings***

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "21". A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

The disclosure is objected to because of the following informalities:

- On line 15 page 6 reference number "51" should be next to the word "click".
- On line 20 page 6 reference number "51" should be next to the word "click" on line 7.
- On line 24 page 6 reference number "51" should be next to the word "click".

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. It has not been described in the specification that how an angle of directional movement for the on-screen cursor is established in response to sensing at least some of the first electromyogram signals. How does the processor translate the electromyogram signals into display indicator (or cursor) movement information?

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Woods et al. US Patent 6,413,190 B1, hereafter Woods.

8. Regarding independent claim 1, "a method for manipulating an on-screen cursor comprising: sensing first electromyogram signals; sensing second electromyogram signals; in response to sensing at least some of the first electromyogram signals, establishing an angle of directional movement for the on-screen cursor; in response to sensing at least some of the second electromyogram signals, moving the on-screen cursor in a previously determined direction." Woods disclose in col. 7 lines 7-11, col. 7 lines 24-28, and col. 8 lines 25-29.

Wood has disclosed in his invention to move and control an on-screen cursor based on muscle contraction data obtained by using (3 or less) body sensors. Wood disclose in col.8 lines 26-30 that the direction and movement of the on screen cursor is based and controlled by two different body parts (muscles) which each body part having a different sensor.

9. Regarding dependent claim 2, "the method of claim 1 wherein sensing first electromyogram signals includes sensing first electromyogram signals from at least a first muscle and wherein sensing the second electromyogram signals includes sensing second electromyogram signals from at least a second muscle, which second muscle is different from the first muscle." Wood disclose in col.8 lines 26-30 that two different body parts (muscles) are used which each body part having a different sensor.

10. Regarding dependent claim 3, "the method of claim 1 wherein establishing an angle of directional movement for the on-screen cursor includes rotating an onscreen directional indicator that corresponds to the angle of directional movement." Woods disclose in col. 8 lines 30-34.

11. Regarding dependent claim 4, "the method of claim 3 wherein rotating an on-screen directional indicator that corresponds to the angle of directional movement includes rotating the on-screen cursor." Woods disclose in col. 8 lines 30-34.

12. Regarding dependent claim 5, "the method of claim 1 and further comprising wirelessly transmitting information signals that at least correspond to the first and second electromyogram signals." Woods disclose in col. 15 lines 15-18.

13. Regarding dependent claim 6, "the method of claim 1 and further comprising wirelessly transmitting information signals that at least correspond to the angle of directional movement for the on-screen cursor and movement of the onscreen cursor in a previously determined direction." Woods disclose in col. 15 lines 28-31.

14. Regarding dependent claim 7, "the method of claim 1 and further comprising processing the first and second electromyogram signals to at least level shift the first and second electromyogram signals." Woods disclose in col. 3 lines 55-65.

15. Regarding dependent claim 8, "the method of claim 1 and further comprising processing the first and second electromyogram signals to at least scale the first and second electromyogram signals." Woods disclose in col. 3 lines 55-65, col. 4 line 2-4.

16. Regarding dependent claim 9, "the method of claim 1 and further comprising processing the first and second electromyogram signals to at least level shift and scale the first and second electromyogram signals." Woods disclose in col. 3 lines 55-65, col. 4 line 2-4.

17. Regarding dependent claim 10, "the method of claim 1 and further comprising, in response to sensing at least one of the electromyogram signals, asserting a mouse click." Woods disclose in col. 5 lines 3-6 and line 9-11.

18. Regarding dependent claim 11, "the method of claim 10 wherein asserting a mouse click includes asserting a mouse left click." Woods disclose in col. 5 lines 3-6 and line 9-11. Examiner interprets the control of the mouse to be left, right or movement of the mouse.

19. Regarding dependent claim 12, "the method of claim 10 wherein asserting a mouse click includes asserting a mouse right click." Woods disclose in col. 5 lines 3-6 and line 9-11. Examiner interprets the control of the mouse to be left, right or movement of the mouse.

20. Regarding dependent claim 13, "the method of claim 1 wherein sensing first electromyogram signals includes sensing first electromyogram signals that at least equal a predetermined threshold." Woods disclose in col. 4 lines 1-7.

21. Claims 14- 20 recite apparatus for performing the method of claims 1-13; therefore they are similar in scope and rejected under the same rationale.

22. Regarding claims 21 and 22, they are similar in scope to claims 1 and 10 and therefore they are rejected under the same rationale.

### ***Conclusion***

23. Any this communication or earlier communications from the examiner should inquiry concerning be directed to **Faranak Fouladi** whose telephone number is **703-305-3223**. The examiner can normally be reached on Mon-Fri from 8:00-4:30.

24. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Michael Razavi** can be reach at **703-305-4713**.

25. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, DC. 20231

**Or faxed to: 703-872-9314 (for Technology Center 2600 only)**

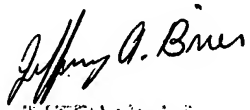
26. Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, sixth-floor (Receptionist).



Art Unit: 2672

27. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is 703-306-0377.

**Faranak Fouladi-Semnani**  
**Patent Examiner**  
**Art Unit 2672**

  
**JEFFERY BINES**  
**PRIMARY EXAMINER**